



# Fermilab

Fermi National Accelerator Laboratory  
P.O. Box 500, Batavia, Illinois 60510  
Phone: (630) 840-8779  
Fax : (630) 840-2677  
*Beams Division/Electron Cooling*

November 24, 2003

MEMO TO: Distribution

FROM: Jerry Leibfritz  
Project Manager

SUBJECT: **OCTOBER MONTHLY REPORT  
MI-31  
FESS/Engineering Project No. 6-6-44**

Please find attached the October 2003 monthly report for this project.

Enclosure

Distribution:

- P. Philp/MS 118
- M. Witherell/MS 105
- K. Stanfield/ MS 105
- S. Holmes/MS 105
- E. Temple/ MS 200
- J. Brown/MS 200
- H. Dick/ MS 306
- D. Carlson/MS 211
- C. Trimby/MS 212
- D. Nevin/MS 214
- E. Crumpley/MS 214
- S. Nagaitsev/ MS 307
- J. Sims/MS 214
- T. Prosapio/MS 214
- J. Spalding/MS 341
- R. Stefanski/MS 122
- Project File 6-6-44
- Chrono File

REPORTING PERIOD: October 2003

## **I. PROGRESS**

### **1.1 General Construction**

- a. Activity – Primary work activities included backfilling the MI berm, CMU wall construction, duct bank construction, and forming and pouring of footings and grade beams in the control room area. The shut down (MS 5) activities began on 9/8/03 and were completed on 10/31/03.
- b. Cumulative hours worked – approximately 12,200 hours through 10/31/03.
- c. Subcontractor's schedule evaluation – As of 10/31/03 the Subcontractor is on schedule. The Subcontractor's fifth payment update occurred on October 20, 2003. See attached reports and section II of this report for an earned value analysis. The Whittakers Subcontract is approximately 52% complete as of 10/31/03.
- d. Engineering Change Proposals/ Requests – See latest ECP list on Website. Supplemental Agreement numbers 1, 2, 3, 4 and 5 have been incorporated into the Subcontract. At this time the total subcontract amount is \$2,635,536 and the completion date is 03/29/04.
- e. Upcoming issues – Structural steel erection, roofing, siding, mechanical and electrical rough in, backfilling and slab construction will be the focus of the month of November
- f. Photographs:





## 1.2 Project Support

- a. Efforts this month were spent on review of submittals, field supervision and construction administration related activities.

### **SCHEDULE INFORMATION AND MILESTONES:**

<b>MILESTONE</b>	<b>DEFINITION</b>	<b>BASELINE</b>	<b>PEP Dates</b>	<b>Latest Estimates</b>
Start Project	Directive signed	30 May 02	30 May 02	26 Jun 02 (actual)
T2 Design Complete	Contract documents submitted for procurement	15 Jan 03	15 Aug 02	15 Nov 02 (actual)
Begin Construction	Notice To Proceed Issued – Switch work	27 Jun 03	21 Nov 02	17 Jan 03 (actual)
Construction Complete	Final acceptance of all work	9 Jun 04	9 Dec 03	29 Mar 04
Project Complete	Project closed	30 Nov 04	10 Dec 03	29 Apr 04

**II. Overall Project Cost Summary and Earned Value Analysis:**

ORIGINAL BASELINE PROJECT COSTS (2001 dollars)				Latest Estimated Cost*	
<b>1.1 General Construction</b>			<b>\$3,047,000</b>	<b>\$3,133,720</b>	
1.1.1	Construction W / 18% OHP		\$2,323,000	\$2,803,841	
1.1.2	Construction Contingency	22%	\$511,000	\$224,008	8%
1.1.3	Construction G & A		\$83,000	\$105,871	
1.1.4	Escalation (4.6 %)	4.6%	\$130,000	\$0	
<b>1.2 Project Support</b>			<b>\$763,000</b>	<b>\$676,280</b>	
1.2.1	Project Engineering		\$465,000	\$482,487	
1.2.2	Project Support Contingency	21%	\$99,000	\$58,702	12%
1.2.3	Project Support G & A		\$166,000	\$135,091	
1.2.4	Escalation (4.6 %)		\$33,000	\$0	
<b>Total Project Cost</b>			<b>\$3,810,000</b>	<b>\$3,810,000</b>	

\*NOTE THAT 1.1 AND 1.2 HAVE BEEN REDISTRIBUTED (2/21/03) TO REFLECT USE OF MUCH OF THE ESCALATION, ACTUAL FIXED PRICE CONSTRUCTION COSTS, AND A HIGHER CONTINGENCY. Includes Supplemental Agreements 1, 2, 3, 4 and 5 and all T&M actual costs to date.

**TPC Earned Value Analysis as of October 31, 2003 (based on earned value reports for October 2003):**

1. The Schedule Variance is -9044\$
2. The Cost Variance is \$15,247 See the detailed earned value reports for more information.



## ATTACHMENTS

See MI-31 website

<http://www-ap.fnal.gov/ecool/internal.html>

for the following:

TSR Report for 10-03

Earned Value Reports - Cost Reports and Graphs up to 10-03

Engineering Change Proposal List

More Photographs

# Task Summary Report by Expenditure Type ("TSR")

[Enter Another Query](#)  
Fermilab Business Services

Period End: OCT03-04

Report on tasks: 1

## A0201 - MI31 Ecooling Bldg

**1 - MI31 Ecooling Bldg**  
**Service Type: PL-EXST PRGM**  
**SUPP-AIP**

### Personnel Costs

	Curr Month Costs	Curr YTD Costs	Curr YTD Obligations	Inception to Date Obligations	Inception to Date Costs	Reqs. in Process	Open Commitments
FRINGE BENEFITS	366.81	366.81	366.81	2,557.87	2,557.87	0.00	0.00
OPTO ALLOC-MONTHLY	63.81	63.81	63.81	768.86	768.86	0.00	0.00
OPTO ALLOC-WEEKLY	0.00	0.00	0.00	79.14	79.14	0.00	0.00
OVERTIME	76.06	76.06	76.06	180.15	180.15	0.00	0.00
TIME WORKED -MONTHLY	981.71	981.71	981.71	9,880.95	9,880.95	0.00	0.00
TIME WORKED -WEEKLY	0.00	0.00	0.00	15.93	15.93	0.00	0.00
VAC EARNED ALLOC-MONTHLY	107.98	107.98	107.98	1,288.23	1,288.23	0.00	0.00
VAC EARNED ALLOC-WEEKLY	0.00	0.00	0.00	94.91	94.91	0.00	0.00
<b>Personnel Costs</b>	<b>1,596.37</b>	<b>1,596.37</b>	<b>1,596.37</b>	<b>14,866.04</b>	<b>14,866.04</b>	<b>0.00</b>	<b>0.00</b>

### Materials & Services

CONSTRUCTION ENGINEERING	15,841.00	15,841.00	15,841.00	267,086.00	267,086.00	0.00	0.00
EXEMPT - CIVIL CONSTR.	0.00	0.00	0.00	1,182,486.00	1,182,486.00	33,742.00	0.00
EXEMPT - CIVIL CONSTRUCTION	149,374.00	149,374.00	0.00	1,453,050.00	149,374.00	0.00	1,303,676.00
FEES	0.00	0.00	0.00	500.00	500.00	0.00	0.00
FREIGHT	0.00	0.00	0.00	5.57	5.57	0.00	0.00
MACHINE SHOP	110.00	110.00	110.00	110.00	110.00	0.00	0.00
MATERIAL PURCHASES	817.00	817.00	817.00	21,278.71	21,278.71	0.00	0.00
PHOTO/GRAPHIC SERVICES	34.00	34.00	34.00	112.00	112.00	0.00	0.00
STORES ISSUES	0.00	0.00	0.00	640.42	640.42	0.00	0.00
SUB-CONTRACT SERVICES	104.80	104.80	104.80	108,755.03	103,824.99	0.00	4,930.04
T&M CONSTRUCTION SVCS.	0.00	0.00	0.00	8,678.12	8,678.12	0.00	0.00

**1 - MI31 Ecooling Bldg**  
**Service Type: PL-EXST PRGM**  
**SUPP-AIP**
Materials & Services

	Curr Month Costs	Curr YTD Costs	Curr YTD Obligations	Inception to Date Obligations	Inception to Date Costs	Reqs. in Process	Open Commitments
T&M ELECTRICAL SERVICES	0.00	0.00	0.00	12,966.11	12,966.11	0.00	0.00
T&M PIPE FITTERS	0.00	0.00	0.00	2,050.86	2,050.86	0.00	0.00
T&M RIGGING SERVICES	19,424.12	19,424.12	2,185.12	83,468.96	64,829.68	0.00	18,639.28
<b>Materials &amp; Services</b>	<b>185,704.92</b>	<b>185,704.92</b>	<b>19,091.92</b>	<b>3,141,187.78</b>	<b>1,813,942.46</b>	<b>33,742.00</b>	<b>1,327,245.32</b>
<u>Indirect Cost</u>							
CSS ALLOCATION	3,246.26	3,246.26	3,246.26	51,385.89	51,385.89	0.00	0.00
G&A ALLOCATION	3.40	3.40	3.40	62,279.06	62,279.06	0.00	0.00
G&A ALLOCATION-CSS PORTION	2,079.39	2,079.39	2,079.39	27,636.08	27,636.08	0.00	0.00
G&A ALLOCATION-M&S PORTION	2,146.49	2,146.49	2,146.49	18,349.53	18,349.53	0.00	0.00
MSA ALLOCATION	1,119.02	1,119.02	1,119.02	40,861.28	40,861.28	0.00	0.00
<b>Indirect Cost</b>	<b>8,594.56</b>	<b>8,594.56</b>	<b>8,594.56</b>	<b>200,511.84</b>	<b>200,511.84</b>	<b>0.00</b>	<b>0.00</b>
<b>1 - MI31 Ecooling Bldg SUBTOTAL:</b>	<b>195,895.85</b>	<b>195,895.85</b>	<b>29,282.85</b>	<b>3,356,565.66</b>	<b>2,029,320.34</b>	<b>33,742.00</b>	<b>1,327,245.32</b>
<b>DIST. TO ACCOUNTS REC'BL:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>UNDISTRIBUTED BALANCE:</b>	<b>195,895.85</b>	<b>195,895.85</b>	<b>29,282.85</b>	<b>3,356,565.66</b>	<b>2,029,320.34</b>	<b>33,742.00</b>	<b>1,327,245.32</b>

REPORT TOTALS

<b>TOTAL PROJECT/TASK:</b>	<b>195,895.85</b>	<b>195,895.85</b>	<b>29,282.85</b>	<b>3,356,565.66</b>	<b>2,029,320.34</b>	<b>33,742.00</b>	<b>1,327,245.32</b>
<b>TOTAL DIST. ACCTS REC'BL:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>TOTAL UNDIST BALANCE:</b>	<b>195,895.85</b>	<b>195,895.85</b>	<b>29,282.85</b>	<b>3,356,565.66</b>	<b>2,029,320.34</b>	<b>33,742.00</b>	<b>1,327,245.32</b>

**BCWP**  
**MI-31 Spending Profile**  
**WBS 1.1 and 1.2**

[illegible]

## WBS 1.2 Escalation and Contingency

Total for WBS 1.2 =	\$676,280	
Total Direct and G&A (above)=	\$469,288 *	
Project Support Escalation =	\$0	
Project Support Contingency =	\$206,992	56%

\*\* NOTE BUDGETED COST OF WORK PERFORMED IS BASED ON WHITTAKERS LATEST T3 COST LOADED SCHEDULE.

## WBS 1.1 Escalation and Contingency

Total for WBS 1.1 =	\$3,133,720	
Total Direct and G&A (above)=	\$1,564,518 *	
Project Support Escalation =	\$0	
Construction Contingency =	\$1,569,202	107%

Total Indirect=	\$100,301
Total Direct =	\$368,987

Total Indirect=	\$99,812
Total Direct =	\$1,464,706



ACWP  
MI-31 Actual Spending Profile  
WBS 1.1 and 1.2

	WBS 1.2 Project Support												WBS 1.1 Construction																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	ED&I						A						Monthly Totals	Cumulative Totals	Subcontract		Subcontract		Subcontract		Subcontract		Switch conduit		Switch conduit		Transformer Purchase		Transformer Purchase				Cable Tray		Cable Tray Cabling		Cabling		Chiller		Chiller		Shielding Steel Fab		Shielding Steel Fab		Shielding Steel Inst.		Shielding Steel Inst.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	T2 Hanson Direct	T2 Hanson G&A	T2 FESS Chargeback	T2 FESS G&A	T3 FESS M&S Direct	T3 FESS M&S G&A	T3 FESS Chargeback	T3 FESS G&A	T3 FESS Chargeback	T3 FESS G&A	T3 PM Salary TX	T3 PM G&A			T3 Whittaker Direct**	T3 Whittaker G&A	T3 Whittaker Incentive	T3 Whittaker G&A	T3 T&M Direct	T3 T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T&M Direct	T&M G&A	T&M Direct	T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T3 T&M Direct	T3 T&M G&A			T3 T&M Direct	T3 T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T3 T&M Direct	T3 T&M G&A	T3 T&M Direct	T3 T&M G&A	Monthly Totals	Cumulative Totals																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
E Y R O 3	Mo-Yr																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

WBS 1.2 Escalation and Contingency  
Total for WBS 1.2 = \$676,280  
Total Direct and G&A (above)= \$484,226  
Project Support Escalation = \$0  
Project Support Contingency = \$192,054 Not Accurate, Reflects unused portions of Direct and Indirect Costs

\*\* NOTE: THIS SPREAD SHEET WILL NOT FOLLOW THE MONTHLY TSR DIRECTLY BECAUSE COST SHOWN UNDER WHITTAKERS T3 SUBCONTRACT ARE EARNED VALUE NOT WHAT HAS BEEN PAID OUT. SEE THE CHART BELOW FOR PAYOUT INFORMATION.

WBS 1.1 Escalation and Contingency  
Total for WBS 1.1 = \$3,133,720  
Total Direct and G&A (above)= \$1,564,827  
Project Support Escalation = \$0  
Construction Contingency = \$1,568,893 Not Accurate, Reflects unused portions of Direct and Indirect Costs

\*\*\*Includes FESS T&M charges for repair of a broken ICW line

\* Total Indirect= \$102,126  
Total Direct = \$382,101

Note: 1. G&A distribution by month is approximate  
2. Text in italics includes costs from Hanson Engineers PO 550107as support of FESS/Engr in house efforts.

PAYOUT SUMMARY																
Payout #	Payout Date amount	PAYMENT MILESTONE	Completion DATE	Actual Comp DATE	AMOUNT	CUMULATIVE TOTAL PAYOUT	RETENTION 10% RETENTION	CUMULATIVE 10% RETENTION	% OF CONTRACT COMPLETE							
Payout #1	6/12/2003 \$399,141	1A	05/02/03	5/5/2003	\$118,384.00	\$118,384.00	\$11,838.40	\$11,838.40	15%							
		1B	06/18/03	6/10/2003	\$280,757.00	\$399,141.00	\$28,075.70	\$39,914.10								
Payout #2	7/1/2003 \$361,749	1C	06/25/03	6/15/2003	\$210,313.00	\$609,454.00	\$21,031.30	\$60,945.40	29%							
		1D	06/27/03	6/27/2003	\$106,112.00	\$715,566.00	\$10,611.20	\$71,556.60								
Payout #3	8/13/2003 \$180,404	1E	07/25/03	7/1/2003	\$45,324.00	\$760,890.00	\$4,532.40	\$76,089.00	36%							
		1F	08/08/03	7/18/2003	\$89,708.00	\$850,598.00	\$8,970.80	\$85,059.80								
Payout #4	9/3/2004 165,725.00	1G	08/05/03	8/5/2003	\$87,682.00	\$938,280.00	\$8,768.20	\$93,828.00	42%							
		1J	07/24/03	7/10/2003	\$3,014.00	\$941,294.00	\$301.40	\$94,129.40								
Payout #5	10/20/2003	1H	08/28/03	8/18/2003	\$88,043.00	\$1,029,337.00	\$8,804.30	\$102,933.70	49%							
		1I	09/08/03	8/28/2003	\$77,682.00	\$1,107,019.00	\$7,768.20	\$110,701.90								
		1K	08/25/03	8/8/2003	\$37,558.00	\$1,144,577.00	\$3,755.80	\$114,457.70								
		5A	10/02/03	9/28/2003	\$67,340.00	\$1,211,917.00	\$6,734.00	\$121,191.70								
		5B	10/28/03	10/20/2003	\$69,144.00	\$1,281,061.00	\$6,914.40	\$128,106.10								
		2A	10/31/03		\$40,617.00											
		2B	12/12/03		\$84,938.00											
		2C	11/18/03		\$32,988.00											
		2D	11/19/03		\$10,000.00											
		2E	12/16/03		\$150,160.00											
		2F	12/23/03		\$107,648.00											
		2G	12/12/03		\$44,349.00											
		2H	01/16/04		\$144,435.00											
		2I	01/16/04		\$21,525.00											
		3A	02/04/04		\$288,578.00											
		3B	02/23/04		\$55,125.00											
		3C	02/23/04		\$3,937.00											
		3D	02/23/04		\$18,276.00											
		3E	03/02/04		\$74,894.00											
		4A	03/19/04		\$13,545.00											
		4B	03/08/04		\$22,295.00											
		4C	03/22/04		\$84,375.00											
		4D	03/24/04		\$34,463.00											
		4E	03/24/04		\$66,727.00											
		6	03/29/04		\$20,800.00											
		7	03/25/04		\$35,000.00											
					\$2,635,536.00											

**BCWS**  
**MI-31 Anticipated Spending Profile**  
**WBS 1.1 and 1.2**

		WBS 1.2 Project Support														WBS 1.1 Construction																										
Title		T2	T2	T2	T2	T3	T3	T3	T3	T3	T3	T3	T3			T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3								
Source		Hanson	Hanson	FESS	FESS	FESS	FESS	FESS	FESS	FESS	FESS	FESS	FESS	PM	PM	Whittaker	Whittaker	Whittaker	Whittaker	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3						
Type		Direct	G&A	Chargeback	Chargeback	G&A	M&S	Chargeback	G&A	Salary	TX	G&A			Monthly Totals	Cumulative Totals	Direct**	G&A	Incentive	G&A	Direct	G&A	Direct	G&A	Direct	G&A	Direct	G&A	Direct	G&A	Direct	G&A	Direct	G&A	Monthly Totals	Cumulative Totals						
F Y 0 2	Mo-Yr																																									
	Jul-02	\$25,000	\$4,250	\$10,000	\$3,000	\$300	\$51								\$42,601	\$42,601																			\$0	\$0						
	Aug-02	\$20,000	\$3,400	\$10,000	\$3,000						\$1,000	\$300			\$37,700	\$80,301																			\$0	\$0						
	Sep-02	\$24,587	\$4,180	\$11,800	\$3,540						\$1,000	\$300			\$45,407	\$125,708																			\$0	\$0						
F Y 0 3	Oct-02		\$10,000	\$3,000		\$300	\$51			\$3,000	\$900	\$1,000	\$300		\$18,551	\$144,259																				\$0	\$0					
	Nov-02	\$20,500	\$3,485	\$10,000	\$3,000					\$3,000	\$900	\$1,000	\$300		\$42,185	\$186,444																			\$0	\$0						
	Dec-02									\$3,000	\$900	\$1,000	\$300		\$7,800	\$194,244																			\$0	\$0						
	Jan-03									\$2,000	\$600				\$7,800	\$202,044					\$20,897	\$3,845													\$24,742	\$24,742						
	Feb-03									\$2,000	\$600				\$7,800	\$209,844																			\$24,103	\$48,845						
	Mar-03					\$200	\$34			\$12,000	\$3,720	\$11,000	\$3,410	\$1,000	\$300	\$31,664	\$241,508	\$0																	\$0	\$48,845						
	Apr-03									\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$274,048	\$92,204																		\$92,204	\$141,049					
	May-03									\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$306,588	\$330,958																		\$330,958	\$472,007					
	Jun-03									\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$339,128	\$292,404	\$80,240																		\$372,644	\$844,651				
	Jul-03									\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$371,668	\$136,381																			\$136,381	\$981,032				
Aug-03									\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$404,208	\$177,390																			\$177,390	\$1,158,422					
Y 0 4	Sep-03								\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$436,748	\$153,322																				\$39,087	\$6,746	\$33,154	\$5,724	\$219,155	\$1,377,577
F Y 0 4	Oct-03								\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$469,288	\$139,019																					\$177,897	\$1,555,474			
	Nov-03								\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$501,828	\$120,253																					\$131,853	\$1,687,327			
	Dec-03								\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$534,368	\$309,830																					\$309,830	\$1,997,157			
	Jan-04								\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$566,908	\$398,108																						\$398,108	\$2,395,265		
	Feb-04								\$12,000	\$3,720	\$12,000	\$3,720	\$900	\$200	\$32,540	\$599,448	\$173,897																						\$191,077	\$2,586,342		
	Mar-04								\$1,000	\$310	\$12,000	\$3,720	\$900	\$200	\$18,130	\$617,578	\$311,770																							\$323,370	\$2,909,712	
TOTALS		\$90,087	\$15,315	\$51,800	\$15,540	\$800	\$136	\$151,000	\$46,750	\$170,000	\$52,550	\$18,800	\$4,800			\$2,635,536	\$80,240	\$20,000	\$0	\$20,897	\$3,845	\$20,357	\$3,746	\$14,810	\$2,370	\$10,000	\$1,600	\$10,000	\$1,600	\$39,087	\$6,746	\$33,154	\$5,724			\$3,527,280						

Includes SA 1,2,3,4, and 5

## WBS 1.2 Escalation and Contingency

Total for WBS 1.2 =	\$676,280	
Total Direct and G&A (above)=	\$617,578 *	
Project Support Escalation =	\$0	
Project Support Contingency =	\$58,702	12%

**\*\* NOTE BUDGETED COST OF WORK SCHEDULED IS BASED ON WHITTAKERS LATEST T3 COST LOADED SCHEDULE.**

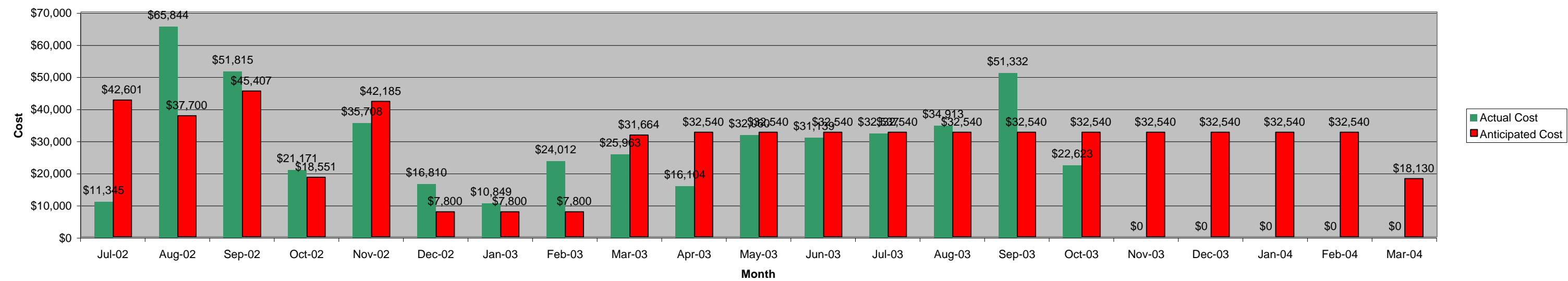
## WBS 1.1 Escalation and Contingency

Total for WBS 1.10 =	\$3,133,720	
Total Direct and G&A (above)=	\$2,909,712 *	
Project Support Escalation =	\$0	
Construction Contingency =	\$224,008	8%

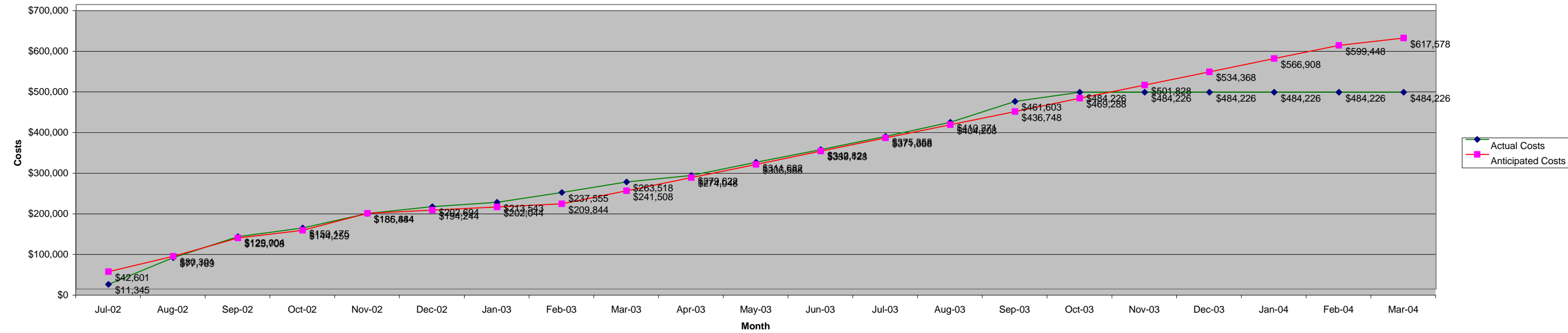
* Total Indirect=	\$135,091
Total Direct =	\$482,487

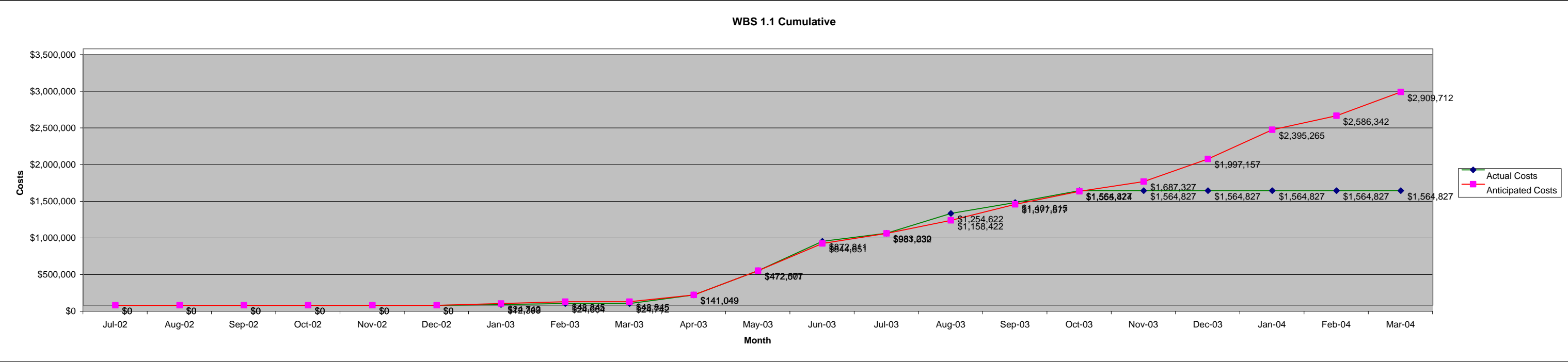
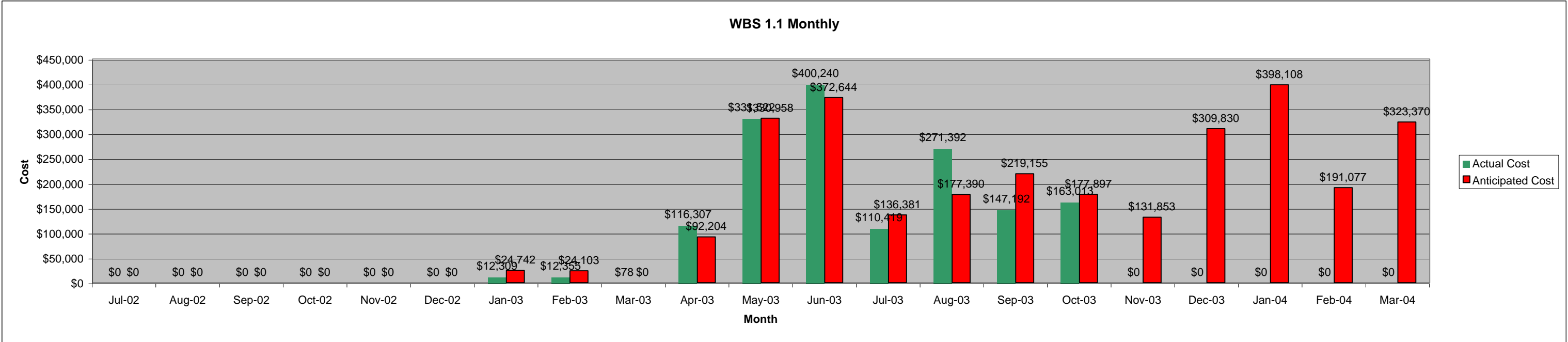
Total Indirect=	\$105,871
Total Direct =	\$2,803,841

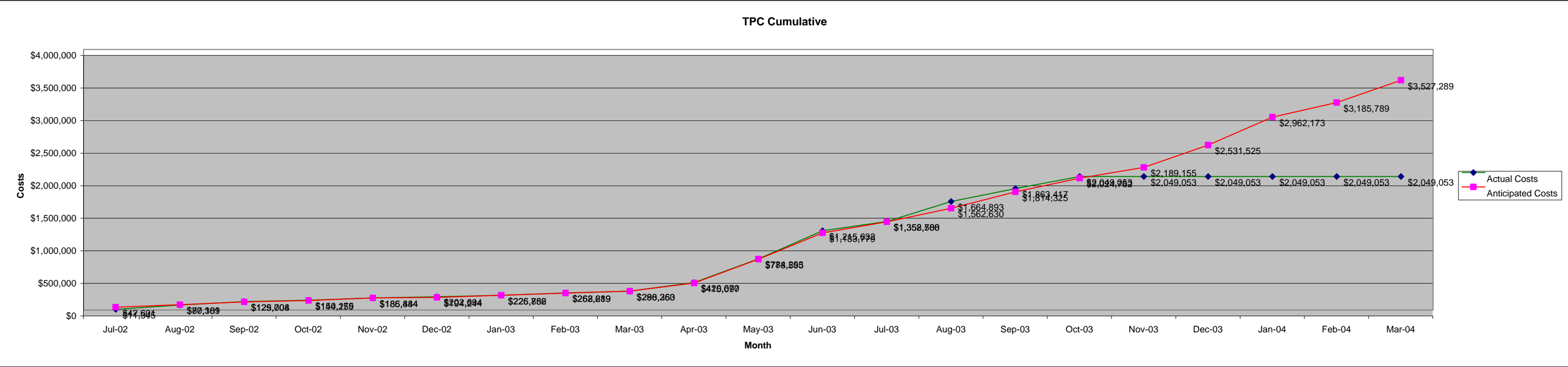
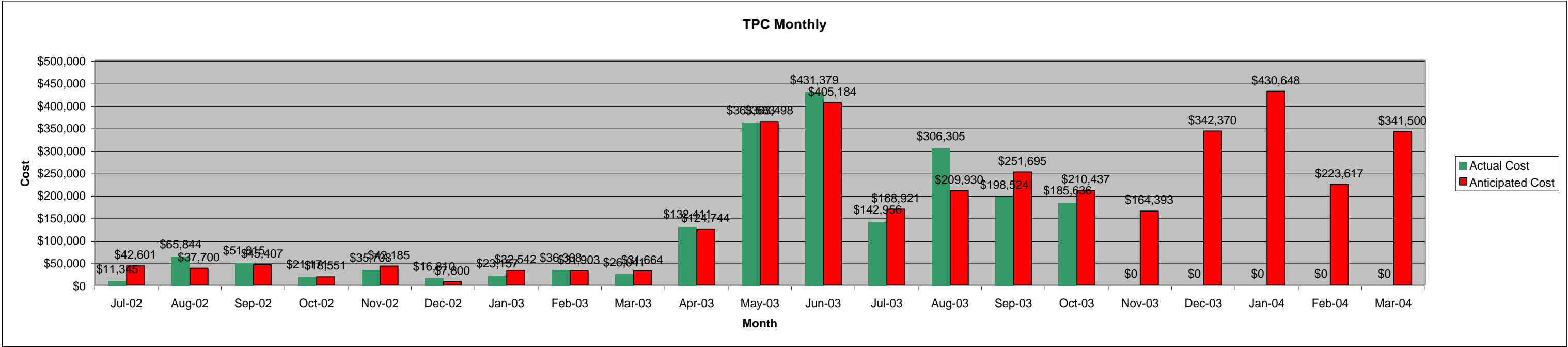
WBS 1.2 Monthly



WBS 1.2 Cumulative







MI-31 ECP LIST

ECP #	Description	Date Issued from CMO	Anticipated Credit, Extra or No Cost	Associated Sketch Number	Actual Credit, Extra or No Cost	Associated Payment Milestone	Overall Schedule Impact In Days	Whittaker Proposal Date	Accepted/Rejected or Pending	Req. #	Req. Approval Date	SA #	Date Work Complete	Comments
1	Holeless elevator instead of single cylinder elevator and add pit ladder	3/12/2003	Extra - \$5000	SK-1...	\$19,390	3a	0	4/17/2003	Accepted	163820	5/6/2003	2		
1a	Full width doors on elevator	3/12/2003	Extra - \$3000	SK-1...	\$3,080	3a	0	4/17/2003	Accepted	163822	5/6/2003	2		
2	Watermain valve clarifications/ modifications and installation of flushing hydrants.	3/12/2003	No Cost	SK-2	\$1,665	1e	1	3/19/2003	Accepted	163549	4/15/2003	1	7/15/2003	
3	Reduce shut down schedule from 6 weeks to 5 weeks VOID	3/12/2003	NA	None	\$0	5a	0	3/28/2003	Rejected					Void
4	Earth retention changes – including bottom of soldier piles to elevation 698 and shielding distance of 18.4 feet.	3/12/2003	No Cost	SK-4	\$0	1b	1	3/28/2003	Accepted	---	4/4/2003	1	4/30/2003	
5	Temporary Bulkhead Door	3/21/2003	Extra - \$7000	SK-5	\$10,231	5a	1	4/14/2003	Accepted	163802	4/25/2003	1	9/11/2003	
6	Modifications to MI Ducts	6/26/2003	Extra – \$30,000	SK-6	\$46,117	5a	5	7/21/2003	Accepted	165776	8/1/2003	4		
7	Install 6 Atlas Piles at MI-30	From Sub	Extra - \$25,000	See Excavation Plan	\$26,180	1a	3	3/28/2003	Accepted	163420	5/1/2003	1	5/7/2003	Rush Requisition, added because excavation plan required supporting building. Approval by CCB required
8	Credit for Wall Panel Coating change – three coat system to two coat system	4/22/2003	Credit – \$3,500	None	-\$3,500	2h	0	4/25/2003	Accepted	--	4/25/2003	2		
9	Credit for substitute damp proofing product	4/22/2003	Credit- \$7,000	None	-\$7,500	1i	0	4/25/2003	Accepted	--	4/25/2003	2		
10	Temporary Work Platform on MI-30	5/5/2003	Extra - \$3500	Page 1 of 1	\$4,610	1b	1	5/14/2003	Accepted	164321	5/19/2003	3	6/1/2003	Field Directed on 5/15/03 - Required for maintenance of MI-30 HVAC units
11	Relocation of Building Sump	6/10/2003	No Cost	SK ECP-10	\$0	1d	0	6/24/2003	Accepted	--		4	6/7/2003	
12	Rad. Detector Platform/ Relocation	From Sub	-	None	\$733		0	6/19/2003	Accepted	165153	6/27/2003	4	6/14/2003	Field Directed , noted incorrectly in the requisition as ECP 11. Time and Material.
13	Extra for Concrete Mix Design 71	From Sub	\$7,300	None	\$5,625	1k	0	9/12/2003	Accepted	165389	7/14/2003	5	8/29/2003	See letter from Mike Botts on 6/25/03
14	Connecting Enclosure Mods	7/28/2003	\$1,500	SK-14	\$1,755	5b	0	9/2/2003	Accepted	166707	9/9/2003	5		
15	Credit for PVC in lieu of Rigid Conduit for ducts on sheet E-6	From Sub	(\$10,000)	None	-\$10,000	5b	0	9/2/2003	Accepted			6		
16	Topsoil for MI Stockpile	9/12/2003	\$10,000	None	\$10,380	1	0		Approved	167479	10/21/2003			Based on per load cost
17	Painting of Cast In Place Walls in Lieu of Concrete Sealer	9/12/2003	\$2,500	None	\$3,362	1	3		Accepted	167479	10/21/2003	6		
18	Time extension for Shielding Steel Placement	From Sub	\$0	None	\$0	5	6		Accepted	--	--	6	NA	
19	Mezzanine	10/22/2003	\$35,000	Several	\$0	2			In Process					
20	Bonus for completing MS 5b on time	NA	\$20,000	NA	\$20,000	5b	0	NA	Accepted	167810	10/28/2003	6		
21	Electrical modifications for Equip. Lift	11/3/2003	\$1,500	SK-21a,b	\$0		0		Pending					
22	Add two 600 amp breakers into the 750 kva transformer	From Sub	-	NA	\$8,771	2	0	11/4/2003	Pending					
23	Credit for change from 750 mcm to 10 cable	From Sub	(\$850)	NA	-\$850				Pending					
	TOTAL				\$140,049									

Note: Changes above colored in blue indicate added scope and bonus related extras.  
All other changes are either unforeseen conditions or plan errors.

Original Subcontract Amount = \$2,527,150

Total Added Scope/Bonus = \$112,248

Total Unforeseen/ Errors = \$27,801

Subcontract amount to date = \$2,667,199

4% change from original subcontract amount

1% change from original subcontract amount